

**App~~end~~ix A
Marked Up V~~er~~sion of Abstract**

The invention concerns an apparatus [1] for carrying out a melting and casting operation in the fine casting art comprising a melting crucible [2] for receiving melting charge, a heating device [3] for heating the melting charge in the melting crucible [2], and a pyrometer [8] for ascertaining the temperature of the melting charge. In order to improve the quality of the products manufactured with such an operation the invention provides that the apparatus [1] is provided with a control device [4] for controlling the melting and casting operation in dependence on the ascertained melting charge temperature, wherein the control device [4] has a database [16] with a plurality of selectable, respectively melting charge material-specific parameter sets [~~PS1, PS2, PS3~~] each with one or more parameters for configuring the pyrometer [8].

[~~(Figure 1)~~]